

UNITED STATES PATENT AND TRADEMARK OFFICE  
CERTIFICATE OF CORRECTION

PATENT NO. : 7,672,447 B2  
APPLICATION NO. : 09/584796  
DATED : March 2, 2010  
INVENTOR(S) : Lindqvist et al.

Page 1 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On Page 2, in Item (56), under "OTHER PUBLICATIONS", in Column 1, Line 8, delete "Enchede," and insert -- Enschede --, therefor.

In Fig. 7, Sheet 5 of 8, for Tag "104", Line 1, delete "V<sub>i</sub>." and insert -- V<sub>i</sub>, --, therefor.

In Column 1, Line 43, delete "General" and insert -- Generally --, therefor.

In Column 2, Line 52, delete "symbols." and insert -- symbol. --, therefor.

In Column 2, Line 53, after "is" insert -- (L+N) --.

In Column 5, Line 33, delete "of" and insert -- for --, therefor.

In Column 5, Line 51, in Equation (1), delete "X<sub>i</sub>=[X<sub>i</sub>(0), X<sub>i</sub>(1),]" and insert -- X<sub>i</sub>=[X<sub>i</sub>(0), X<sub>i</sub>(1), --, therefor.

In Column 6, Line 2, delete "receiving" and insert -- received --, therefor.

In Column 6, Line 10, in Equation (4), delete "x<sub>i</sub>=QX<sub>i</sub>" and insert -- s<sub>i</sub>=QX<sub>i</sub> --, therefor.

In Column 7, Line 9, delete "N×I)" and insert -- N×1) --, therefor.

In Column 9, Line 10, delete " E<sub>i</sub>=Y<sub>i</sub>=Ŷ<sub>i</sub> " and insert -- E<sub>i</sub>=Y<sub>i</sub>-Ŷ<sub>i</sub> --, therefor.

In Column 9, Line 57, delete "X<sub>imag,1</sub>" and insert -- X<sub>imag,i</sub> --, therefor.

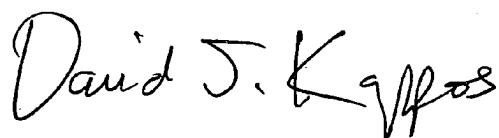
In Column 9, Line 60, Equation (24), delete "(N/2)]<sup>b</sup>" and insert -- (N/2)]<sup>T</sup> --, therefor.

In Column 10, Line 25, after "further" insert -- defined --.

In Column 10, Line 26, delete "N-1" and insert -- L-1 --, therefor.

Signed and Sealed this

Nineteenth Day of October, 2010



David J. Kappos  
Director of the United States Patent and Trademark Office

In Column 11, Line 42, in Equation (40), delete “  $\hat{Y}_i = V_i X_i + Z_i (X_i - \bar{X}_{i-1})$ , ” and  
 insert --  $\hat{Y}_i = \mathbf{V}_i \bullet \mathbf{X}_i + \mathbf{Z}_i (\mathbf{X}_i - \bar{\mathbf{X}}_{i-1})$  --, therefor.

In Column 11, Line 63, in Equation (43), delete “  $Z_{i+1} Z_i + \mu E_i (X_i^* - \bar{X}_{i-1}^*)^T$  ” and  
 insert --  $\mathbf{Z}_{i+1} = \mathbf{Z}_i + \mu \mathbf{E}_i (\mathbf{X}_i^* - \bar{\mathbf{X}}_{i-1}^*)^T$  --, therefor.

In Column 13, above Equation (47),

$$\mathbf{V}_{i+1} = \mathbf{V}_i + \mu \mathbf{E}_i \bullet (\mathbf{X} \mathbf{r} \mathbf{e} \mathbf{p}_i^*)^T \quad (46)$$

In Column 13, Line 5, Equation (47) delete “  $V_{i+1} = V_{i+\mu E_i} (X_i^* - \bar{X}_{i-1}^*)^T$  ” and  
 insert --  $\mathbf{Z}_{i+1} = \mathbf{Z}_i + \mu \mathbf{E}_i (\mathbf{X}_i^* - \bar{\mathbf{X}}_{i-1}^*)^T$  --, therefor.

In Column 13, Line 37, delete “  $\{(V_i x_i)_i, q\}$  ” and insert -- “  $\{(V_i x_i), q\}$  ” --, therefor.

In Column 13, Line 51, in Equation (51), delete “  $Z_{i+1} = Z_i + \mu E \mathbf{r} \mathbf{e} \mathbf{p}_i (X_i^* - \bar{X}_{i-1}^*)^T$  ” and  
 insert --  $\mathbf{Z}_{i+1} = \mathbf{Z}_i + \mu \mathbf{E} \mathbf{r} \mathbf{e} \mathbf{p}_i (\mathbf{X}_i^* - \bar{\mathbf{X}}_{i-1}^*)^T$  --, therefor.

In Column 14, Line 43, delete “(29).” and insert -- (39). --, therefor.

In Column 16, Line 59, in Claim 17, after “remove” insert -- the transformed estimate --.